



SEQUENCE LISTING

<110> Seino, Tadao
Shibasaki, Tadao
Ozaki, Nobuaki

<120> Protein Rim2

<130> P19771

<140> 09/617,099

<141> 2000-07-14

<150> JP 288372/99

<151> 1999-10-08

<160> 5

<170> PatentIn version 3.0

<210> 1

<211> 1590

<212> PRT

<213> Mus musculus

<400> 1

Met Ser Ala Pro Leu Gly Pro Arg Gly Arg Pro Ala Pro Thr Pro Ala
1 5 10 15

Ala Ser Gln Pro Pro Pro Gln Pro Glu Met Pro Asp Leu Ser His Leu
20 25 30

Thr Glu Glu Glu Arg Lys Ile Ile Leu Ala Val Met Asp Arg Gln Lys
35 40 45

Lys Glu Glu Glu Lys Glu Gln Ser Val Leu Lys Ile Lys Glu Glu His
50 55 60

Lys Ala Gln Pro Thr Gln Trp Phe Pro Phe Ser Gly Ile Thr Glu Leu
65 70 75 80

Val Asn Asn Val Leu Gln Pro Gln Gln Lys Gln Pro Asn Glu Lys Glu
85 90 95

Pro Gln Thr Lys Leu His Gln Gln Phe Glu Met Tyr Lys Glu Gln Val
100 105 110

Lys Lys Met Gly Glu Glu Ser Gln Gln Gln Glu Gln Lys Gly Asp
115 120 125

Ala Pro Thr Cys Gly Ile Cys His Lys Thr Lys Phe Ala Asp Gly Cys
130 135 140

Gly His Asn Cys Ser Tyr Cys Gln Thr Lys Phe Cys Ala Arg Cys Gly
145 150 155 160

Gly Arg Val Ser Leu Arg Ser Asn Lys Val Met Trp Val Cys Asn Leu
165 170 175

Cys Arg Lys Gln Gln Glu Ile Leu Thr Lys Ser Gly Ala Trp Phe Tyr
 180 185 190
 Asn Ser Gly Ser Asn Thr Leu Gln Gln Pro Asp Gln Lys Val Pro Arg
 195 200 205
 Gly Leu Arg Asn Glu Glu Ala Pro Gln Glu Lys Lys Ala Lys Leu His
 210 215 220
 Glu Gln Pro Gln Phe Gln Gly Ala Pro Gly Asp Leu Ser Val Pro Ala
 225 230 235 240
 Val Glu Lys Gly Arg Ala His Gly Leu Thr Arg Gln Asp Thr Ile Lys
 245 250 255
 Asn Gly Ser Gly Val Lys His Gln Ile Ala Ser Asp Met Pro Ser Asp
 260 265 270
 Arg Lys Arg Ser Pro Ser Val Ser Arg Asp Gln Asn Arg Arg Tyr Glu
 275 280 285
 Gln Ser Glu Glu Arg Glu Asp Tyr Ser Gln Tyr Val Pro Ser Asp Gly
 290 295 300
 Thr Met Pro Arg Ser Pro Ser Asp Tyr Ala Asp Arg Arg Ser Gln Arg
 305 310 315 320
 Glu Pro Gln Phe Tyr Glu Glu Pro Gly His Leu Asn Tyr Arg Asp Ser
 325 330 335
 Asn Arg Arg Gly His Arg His Ser Lys Glu Tyr Ile Val Asp Asp Glu
 340 345 350
 Asp Val Glu Ser Arg Asp Glu Tyr Glu Arg Gln Arg Arg Glu Glu Glu
 355 360 365
 Tyr Gln Ala Arg Tyr Arg Ser Asp Pro Asn Leu Ala Arg Tyr Pro Val
 370 375 380
 Lys Pro Gln Pro Tyr Glu Glu Gln Met Arg Ile His Ala Glu Val Ser
 385 390 395 400
 Arg Ala Arg His Glu Arg Arg His Ser Asp Val Ser Leu Ala Asn Ala
 405 410 415
 Glu Leu Glu Asp Ser Arg Ile Ser Leu Leu Arg Met Asp Arg Pro Ser
 420 425 430
 Arg Gln Arg Ser Val Ser Glu Arg Arg Ala Ala Met Glu Asn Gln Arg
 435 440 445
 Ser Tyr Ser Met Glu Arg Thr Arg Glu Ala Gln Gly Gln Ser Ser Tyr
 450 455 460
 Pro Gln Arg Thr Ser Asn His Ser Pro Pro Thr Pro Arg Arg Ser Pro
 465 470 475 480
 Ile Pro Leu Asp Arg Pro Asp Met Arg Arg Ala Asp Ser Leu Arg Lys

Page 3

Pro Met Ser Pro Gly Met Leu Arg Asp Val Pro Gln Phe Leu Ser Gly
 805 810 815
 Gln Leu Ser Ile Lys Leu Trp Phe Asp Lys Val Gly His Gln Leu Ile
 820 825 830
 Val Thr Ile Leu Gly Ala Lys Asp Leu Pro Ser Arg Glu Asp Gly Arg
 835 840 845
 Pro Arg Asn Pro Tyr Val Lys Ile Tyr Phe Leu Pro Asp Arg Ser Asp
 850 855 860
 Lys Asn Lys Arg Arg Thr Lys Thr Val Lys Lys Thr Leu Glu Pro Lys
 865 870 875 880
 Trp Asn Gln Thr Phe Ile Tyr Ser Pro Val His Arg Arg Glu Phe Arg
 885 890 895
 Glu Arg Met Leu Glu Ile Thr Leu Trp Asp Gln Ala Arg Val Arg Glu
 900 905 910
 Glu Glu Ser Glu Phe Leu Gly Glu Ile Leu Ile Glu Leu Glu Thr Ala
 915 920 925
 Leu Leu Asp Asp Glu Pro His Trp Tyr Lys Leu Gln Thr His Asp Val
 930 935 940
 Ser Ser Leu Pro Leu Pro Arg Pro Ser Pro Tyr Leu Pro Arg Arg Gln
 945 950 955 960
 Leu His Gly Glu Ser Pro Thr Arg Arg Leu Gln Arg Ser Lys Arg Ile
 965 970 975
 Ser Asp Ser Glu Val Ser Asp Tyr Asp Cys Glu Asp Gly Val Gly Val
 980 985 990
 Val Ser Asp Tyr Arg His Asn Gly Arg Asp Leu Gln Ser Ser Thr Leu
 995 1000 1005
 Ser Val Pro Glu Gln Val Met Ser Ser Asn His Cys Ser Pro Ser
 1010 1015 1020
 Gly Ser Pro His Arg Val Asp Val Ile Gly Arg Thr Arg Ser Trp
 1025 1030 1035
 Ser Pro Ser Ala Pro Pro Pro Gln Arg Asn Val Glu Gln Gly His
 1040 1045 1050
 Arg Gly Thr Arg Ala Thr Gly His Tyr Asn Thr Ile Ser Arg Met
 1055 1060 1065
 Asp Arg His Arg Val Met Asp Asp His Tyr Ser Ser Asp Arg Asp
 1070 1075 1080
 Arg Asp Cys Glu Ala Ala Asp Arg Gln Pro Tyr His Arg Ser Arg
 1085 1090 1095
 Ser Thr Glu Gln Arg Pro Leu Leu Glu Arg Thr Thr Thr Arg Ser
 1100 1105 1110

Arg Ser Ser Glu Arg Pro Asp Thr Asn Leu Met Arg Ser Met Pro
 1115 1120 1125
 Ser Leu Met Thr Gly Arg Ser Ala Pro Pro Ser Pro Ala Leu Ser
 1130 1135 1140
 Arg Ser His Pro Arg Thr Gly Ser Val Gln Thr Ser Pro Ser Ser
 1145 1150 1155
 Thr Pro Gly Thr Gly Arg Arg Gly Arg Gln Leu Pro Gln Leu Pro
 1160 1165 1170
 Pro Lys Gly Thr Leu Glu Arg Ser Ala Met Asp Ile Glu Glu Arg
 1175 1180 1185
 Asn Arg Gln Met Lys Leu Asn Lys Tyr Lys Gln Val Ala Gly Ser
 1190 1195 1200
 Asp Pro Arg Leu Glu Gln Asp Tyr His Ser Lys Tyr Arg Ser Gly
 1205 1210 1215
 Trp Asp Pro His Arg Gly Ala Asp Thr Val Ser Thr Lys Ser Ser
 1220 1225 1230
 Asp Ser Asp Val Ser Asp Val Ser Ala Val Ser Arg Thr Ser Ser
 1235 1240 1245
 Ala Ser Arg Phe Ser Ser Thr Ser Tyr Met Ser Val Gln Ser Glu
 1250 1255 1260
 Arg Pro Arg Gly Asn Arg Lys Ile Ser Val Phe Thr Ser Lys Met
 1265 1270 1275
 Gln Asn Arg Gln Met Gly Val Ser Gly Lys Asn Leu Thr Lys Ser
 1280 1285 1290
 Thr Ser Ile Ser Gly Asp Met Cys Ser Leu Glu Lys Asn Asp Gly
 1295 1300 1305
 Ser Gln Ser Asp Thr Ala Val Gly Ala Leu Gly Thr Ser Gly Lys
 1310 1315 1320
 Lys Arg Arg Ser Ser Ile Gly Ala Lys Met Val Ala Ile Val Gly
 1325 1330 1335
 Leu Ser Arg Lys Ser Arg Ser Ala Ser Gln Leu Ser Gln Thr Glu
 1340 1345 1350
 Gly Gly Gly Lys Lys Leu Arg Ser Thr Val Gln Arg Ser Thr Glu
 1355 1360 1365
 Thr Gly Leu Ala Val Glu Met Arg Asn Trp Met Thr Arg Gln Ala
 1370 1375 1380
 Ser Arg Glu Ser Thr Asp Gly Ser Met Asn Ser Tyr Ser Ser Glu
 1385 1390 1395
 Gly Asn Leu Ile Phe Pro Gly Val Arg Leu Ala Ser Asp Ser Gln

1400	1405	1410
Phe Ser Asp Phe Leu Asp Gly	Leu Gly Pro Ala Gln	Leu Val Gly
1415	1420	1425
Arg Gln Thr Leu Ala Thr Pro	Ala Met Gly Asp Ile	Gln Val Gly
1430	1435	1440
Met Met Asp Lys Lys Gly Gln	Leu Glu Val Glu Ile	Ile Arg Ala
1445	1450	1455
Arg Gly Leu Val Val Lys Pro	Gly Ser Lys Thr Leu	Pro Ala Pro
1460	1465	1470
Tyr Val Lys Val Tyr Leu Leu	Asp Asn Gly Val Cys	Ile Ala Lys
1475	1480	1485
Lys Lys Thr Lys Val Ala Arg	Lys Thr Leu Glu Pro	Leu Tyr Gln
1490	1495	1500
Gln Leu Leu Ser Phe Glu Glu	Ser Pro Gln Gly Arg	Val Leu Gln
1505	1510	1515
Ile Ile Val Trp Gly Asp Tyr	Gly Arg Met Asp His	Lys Ser Phe
1520	1525	1530
Met Gly Val Ala Gln Ile Leu	Leu Asp Glu Leu Glu	Leu Ser Asn
1535	1540	1545
Met Val Ile Gly Trp Phe Lys	Leu Phe Pro Pro Ser	Ser Leu Val
1550	1555	1560
Asp Pro Thr Ser Ala Pro Leu	Thr Arg Arg Ala Ser	Gln Ser Ser
1565	1570	1575
Leu Glu Ser Ser Thr Gly Pro	Ser Tyr Ser Arg Ser	
1580	1585	1590

<210> 2
 <211> 4980
 <212> DNA
 <213> Mus musculus

<400> 2
 gcttccctag ggtggttcgg ctccgccaaa catgtcggct ccgctcgggc cccggggccg 60
 cccggctccc acccggcg cctctcaacc tcctccgcag cccgagatgc cggacctcag 120
 ccacctcacg gaagaggaga ggaaaatcat cctggctgtc atggatcgtc agaagaaaga 180
 agaggagaag gagcagtccg tgctcaagat caaagaagaa cacaaagcac aaccgacaca 240
 gtggtttccc tttagtggga tcaactgaact ggtaaataac gttctgcagc cccagcaaaa 300
 acaaccaat gagaaggagc cccagacaaa gctgcaccaa caatttgaaa tgtataagga 360
 gcaagtcaag aagatgggag aggaatcgca gcagcagcaa gagcagaagg gtgatgcccc 420
 gacctgtggc atctgccaca agacaaaatt tgcagatgga tgcggccata attgttccta 480

ttgccaaacc aagttctgtg ctcgatgtgg aggtcgagtg tctttacgct caaacaaggt 540
 tatgtgggtg tgtaatttgt gccgaaaaca acaagaaatc ctactaaat caggagcatg 600
 gttttataat agtgggtcta acacactgca gcaacctgat caaaagggtc ctcgagggct 660
 tcgaaatgag gaagcccctc aggagaagaa agcaaaaacta cacgagcagc cccagttcca 720
 aggagcccca ggtgacttat cagtacctgc agttgagaaa ggccgagctc atgggctcac 780
 aagacaggat actattaaaa atggatcagg agtgaagcac cagattgcca gtgacatgcc 840
 ttcagacaga aaacgaagtc catcagtgtc cagggatcaa aatcgaagat acgagcaaag 900
 tgaagaaaga gaggactact cacagtatgt tccttcagat ggtacaatgc caagatctcc 960
 ttcggattat gctgatagac gatctcagcg tgagcctcaa ttttatgaag aacctggtca 1020
 tttaaattac agggattcta acaggagagg ccatagacat tccaaagagt atattgtgga 1080
 tgatgaagat gtggagagca gagatgaata tgaaagacaa aggagagagg aggaatacca 1140
 ggcacgctac agaagtgatc caaatctggc ccggtatccc gtaaagccac aaccctacga 1200
 agaacaaatg cgcattccacg ctgagggtgc cagggcacga catgagagaa ggcacagtga 1260
 tgtttctttg gcaaacgctg aactagaaga ttccaggatt tctctgctaa ggatggatag 1320
 accatcaagg caaagatctg tatctgaacg tagagctgca atggaaaacc aacgatcgta 1380
 ttcaatggaa agaactcgag aggtcaggg acaaagttct tatccacaaa ggacctcaaa 1440
 tcatagtcct cccacccctc ggcgaggccc tataccgctt gatagaccag acatgaggcg 1500
 cgctgactcc ctacggaaac agcaccactt agatcccagc tctgctgtga ggaaaacgaa 1560
 gcgagaaaaa atggaaacca tgttaaggaa tgattctttg agttcagacc agtccgagtc 1620
 agtgaggccg cccccaccaa ggctcataa atccaagaaa ggaggtaaaa tgcgccaggt 1680
 ttcactgagc agctcggagg aggagctggc atccacacct gagtatacaa gctgtgatga 1740
 tgtggagctg gaaagcgaga gtgtgagtga gaaaggggac agtcaaaaagg gaaaaagaaa 1800
 aactagttag cagggagttt tgtcggattc taacaccagg tctgagagac aaaagaaaag 1860
 gatgtactat ggtggccact ctttggaaga ggatttgga tggctctgagc ctcagattaa 1920
 ggactctggg gtagatacct gtagtagcac aacccttaac gaggagcata gccatagtga 1980
 taagcaccct gtgacctggc agccatccaa agatggagat cgcctaattg gtcgtatttt 2040
 attaaataag cgttttaaaag atgggagtg acctcgagac tcaggagcaa tgctgggctt 2100
 aaaggttgta ggaggaaaga tgactgaatc aggtcgactt tgtgcattta ttaccaaagt 2160
 aaaaaaagga agtttagctg atactgtagg acatcttaga ccagggtgatg aagtcttgga 2220

atggaatggg aggctattgc aaggagccac atttgaggaa gtttacaaca ttattctaga 2280
 atccaaacct gaaccacaag ttgagcttgt tgtttcaagg ccaattggag atattcctag 2340
 aatacctgat agcacgcatg cacaactgga atccagttct agctcatttg aatctcaaaa 2400
 aatggaccgt ccttctatat ccgttacctc acccatgagt cctggcatgc tgagggatgt 2460
 cccgcagttc ttatctggac agctttcaat aaaactatgg tttgacaagg ttggtcacca 2520
 gttgatagtt acaattttgg gagcaaagga tctcccttcc agggaagatg ggaggccaag 2580
 gaatccttat gttaagattt acttccttcc agatagaagt gataaaaaata agagaagaac 2640
 aaaaacagtc aagaaaactt tggaacccaa atggaaccag actttcattt attctcctgt 2700
 ccaccgaaga gaattccgtg aacgaatgct ggaaattacc ctttgggatc aagctagagt 2760
 tcgagaagaa gagagcgaat tcttaggaga gattttaatt gaattggaaa cagctttgct 2820
 agatgatgag ccgcactggg ataagctgca gacccatgat gtctcctcat tgccactccc 2880
 tcgcccttcc ccatactctg cccggaggca gctccatgga gagagcccaa cgcgaggct 2940
 gcaaaggctg aagagaataa gtgacagtga agtgtctgac tacgactgag aggatggcgt 3000
 gggagtagtg tcagattatc gacacaatgg ccgcgatctt caaagctcca cgttgtcggg 3060
 gccagaacaa gtcagtgtcat caaatcattg ctcaccatca ggggtctctc atcgagtaga 3120
 tgttatagga aggacaaggc catggctgcc tagtgcccct cctcctcaaa ggaatgtgga 3180
 acaggggcac cgagggacac gtgctactgg ccattacaac acaattagcc gaatggatag 3240
 acaccgtgtc atggatgacc actactcttc agatagagac agggattgtg aagcagcaga 3300
 tagacagcca tatcacagat ccagatcaac agaacaacgg cctctcctag agcggaccac 3360
 caccgctcc agatcctctg aacgtcctga taaaacctc atgaggtcga tgccttcatt 3420
 aatgactgga agatctgccc ctccctcacc tgccttatcg aggtctcacc ctcgtagcgg 3480
 gtctgtccag acaagcccat caagtactcc gggaacagga cgaaggggccc gacagcttcc 3540
 acagcttcca ccaaagggaa cattggagag aagtgtctat gatatagagg agagaaatcg 3600
 ccaaataaaa ctaacaaat acaaacaggt agccggatca gacccagac tggagcaaga 3660
 ttaccattcg aagtatcgct caggatggga tccacataga ggggcagata ctgtttccac 3720
 taaatcctcg gacagtgatg taagtgatgt atctgcgggt tcaaggacta gtagtgcttc 3780
 tcgtttcagc agcacaagct acatgtccgt ccaatcagag cggccgagag gaaacaggaa 3840
 aatcagtgtc tttacatcca aaatgcaaaa cagacagatg ggcgtgtcgg ggaagaactt 3900
 gacaaaagc accagcatca gtggagacat gtgctcactg gagaagaatg acggcagcca 3960
 gtccgacact gcagtgggag ccctgggtac cagtggcaag aagcggcgat ctagcattgg 4020

ggccaaaatg gtagctattg ttggtctctc acggaaaagt cgcagtgcct ctcaactcag 4080
 ccaaaccgaa ggaggaggta aaaagctacg gagcactggt cagagaagca cggagaccgg 4140
 gctagcagtg gagatgagga actggatgac ccgccaggcc agccgggaat ccacagatgg 4200
 cagcatgaac agctatagct cggaaggaaa tctgatcttc cctgggggtcc gcctggcctc 4260
 tgacagccag ttcagtgatt tcctggatgg cctgggccct gctcagctag tgggacgcca 4320
 gaccctggct actcctgcaa tgggtgacat tcagggtgga atgatggata aaaagggaca 4380
 gctggaggta gaaatcatcc gggcgcgcgg ccttgtggta aaaccagggt ccaagacact 4440
 gccagcaccg tatgtcaagg tgtatctggt agacaacgga gtctgcatag caaaaagaa 4500
 aaccaagggt gcgagaaaga ccctggagcc cctgtaccag cagctcttgt ccttcgagga 4560
 gagccccag gggagggtgt tacagatcat tgtctgggga gattatggtc gtatggatca 4620
 caaatccttt atgggagtggt ccagatact cttagatgaa ctggaactat ccaacatggt 4680
 gattggatgg ttcaaaactct tccctccttc ctccctagta gatccaacct cggcacctct 4740
 gacaagaaga gcttccaat cgtctctgga aagttctacc ggaccttctt actctcgttc 4800
 atagcaacta taaaactggt gtcacaacaa ccagcgatac aaaaaccaga agaaaacgca 4860
 cagggtggaag cccctggtaa cactgcatgc ttgatgttgt gtctacagag cccacgtcta 4920
 gggataccaa gcagtcctgt gttctcagag gaagtcgtac acattgtgcc ctagcaaagg 4980

<210> 3
 <211> 45
 <212> DNA
 <213> Mus musculus

<400> 3
 ttgcgctcac tcttctggcc tcccttgcca ttctgctctg aaagc 45

<210> 4
 <211> 16
 <212> DNA
 <213> Mus musculus

<400> 4
 acctacgtga ctacgt 16

<210> 5
 <211> 11
 <212> PRT
 <213> Mus musculus

<400> 5

Al
r

Gln	Met	Ser	His	Arg	Leu	Glu	Pro	Arg	Arg	Pro
1				5					10	